

CALIFORNIA COASTAL COMMISSION

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STAFF REPORT AND RECOMMENDATION

ON CONSISTENCY DETERMINATION

Consistency Determination No. **CD-117-99**
Staff: JRR-SF
File Date: 12/16/1999
45th Day: 01/30/2000
60th Day Extended to: 8/17/2001
Commission Meeting: 8/9/2001

FEDERAL AGENCY: **CORPS OF ENGINEERS**

DEVELOPMENT

LOCATION: Lower Mission Creek, Santa Barbara (Exhibit 1)

DEVELOPMENT

DESCRIPTION: Lower Mission Creek flood-control improvements
(Exhibits 2-9)

EXECUTIVE SUMMARY

The Corps has submitted a consistency determination to improve flood protection on Mission Creek, in the City of Santa Barbara. The proposed project will increase the channel capacity to 3400 cubic feet per second (cfs) and will thereby provide approximately a 20-year storm level of protection. Four bridges along the study reach will be replaced during the project and the City, prior to the project, will replace one. Additionally, the project includes a new culvert bypassing the oxbow below Highway 101 ("oxbow bypass"). The oxbow will be left in place as a low-flow channel. The project includes planting of native riparian species along sloped banks stabilized by riprap and creation of additional riparian habitat by enlarging planted slopes in areas where the Corps must purchase property adjacent to the stream. The creek banks will consist of either a vertical wall or a combination vertical wall and riprap sideslope. The combination vertical wall and riprap sideslope will consist of vertical wall for the bottom half, while ungrouted riprap slope will form the upper half. Native riparian

vegetation will be planted within the riprap. Existing natural stream bottom will be maintained and stream bottom that is now concrete lined will be restored to natural conditions, except for immediately underneath bridges and through the oxbow. The project includes instream features to improve fish habitat. The flood control facility within the coastal zone consists primarily of vertical walls, with two small sections that include short walls with a vegetated riprap slope above the walls. The area inland of the coastal zone will be mostly vegetated riprap with small retaining walls.

Sections 30236 and 30233 of the Coastal Act allow stream alteration that is necessary for flood-control purposes and prevent the Commission from approving this stream alteration unless it is the least damaging feasible alternative. The proposed project will improve flood-control capacity of the stream, which floods on a regular basis. In addition, most of the alternatives considered by the Corps would not provide sufficient flood-control protection or would not otherwise be feasible.

The proposed project includes impacts to estuarine and riparian wetland resources. Sections 30236, 30233 and 30240 of the Coastal Act prevent the Commission from approving this stream alteration unless it includes feasible mitigation and it avoids significant disruption to the sensitive habitat. The proposed project affects habitat to federally listed threatened species, steelhead trout and tidewater goby. The project includes the following mitigation measures: 1) creation of riparian habitat on the banks of the stream; 2) widening the estuary; 3) construction of a pilot channel functioning as a low flow channel for the entire creek above the estuary; 4) instream features improving fish habitat; and 5) seasonal limitations on construction and maintenance activities.

The proposed flood-control facility includes annual dredging, vegetation removal, and herbicide use inland of the coastal zone boundary and could degrade the water quality of the stream. Section 30231 of the Coastal Act requires the Commission to protect the water quality of coastal waters. The removal of vegetation and sediment will not occur in the coastal zone. In addition, the Corps' maintenance activities include measures, such as silt curtains and mosaic vegetation removal, to minimize water quality impacts on coastal zone resources from maintenance activities inland of the coastal zone. The Corps has agreed to coordinate the construction of the flood-control facility with the water quality efforts within the City of Santa Barbara, so that, if necessary and advantageous, the City could construct measures to control appropriate non-point source pollution concurrent with the project. Finally, the Corps will prepare a storm water pollution prevention plan (SWPPP) to minimize water quality impacts from the construction of the flood-control facility. The Commission, in a subsequent consistency review of the design phase of this project, will review both the SWPPP and the maintenance plan.

The proposed project includes the removal of sediment from the stream. Section 30233 of the Coastal Act requires sediment removed from coastal streams to be

used to restore sand supply on local beaches. Although the Corps' consistency determination does not evaluate the suitability of this sediment for beach replenishment purposes, the Corps proposes to place any suitable material on the beach. The Corps will provide the Commission with sediment characterization data when it conducts a subsequent consistency review of the project before the Corps approves the final design of the project.

The proposed construction of the vertical walls south of Highway 101 could adversely affect visual resources of the coastal zone. Section 30251 of the Coastal Act provides for the protection of visual resources within the coastal zone. In its environmental documents, the Corps proposes to design the project in a manner that minimizes visual impacts. This commitment will be confirmed through federal consistency review of the final design plans.

The environmental documents for the Mission Creek project state that there are historic and archaeological resources potentially affected by the proposed project. Section 30244 of the Coastal Act requires the Commission to consider mitigation measures for these resources. The Corps has coordinated with the State Historic Preservation Officer (SHPO) and has incorporated relevant protection measures into the proposed project.

SUBSTANTIVE FILE DOCUMENTS:

1. Draft Environmental Impact Statement/Environmental Impact Report for Lower Mission Creek Flood Control Project, Santa Barbara, California, December 1999.
2. Final Environmental Impact Statement/Environmental Impact Report for Lower Mission Creek Flood Control Project, Santa Barbara, California, September 2000.
3. Biological Assessments, Lower Mission Creek Flood Control Project, Santa Barbara, California, December 1999.
4. Draft Fish and Wildlife Coordination Act Report, Lower Mission Creek Flood Control Project, Santa Barbara, California, U.S. Fish and Wildlife Service, September 1999.
5. Biological Opinion for the Lower Mission Creek Flood Control Project, Santa Barbara, County California, National Marine Fisheries Service, August 2, 2000.
6. Biological Opinion for the Lower Mission Creek Flood Control Project, Santa Barbara, County California, U.S. Fish and Wildlife Service, June 1, 2001.

STAFF SUMMARY AND RECOMMENDATION:

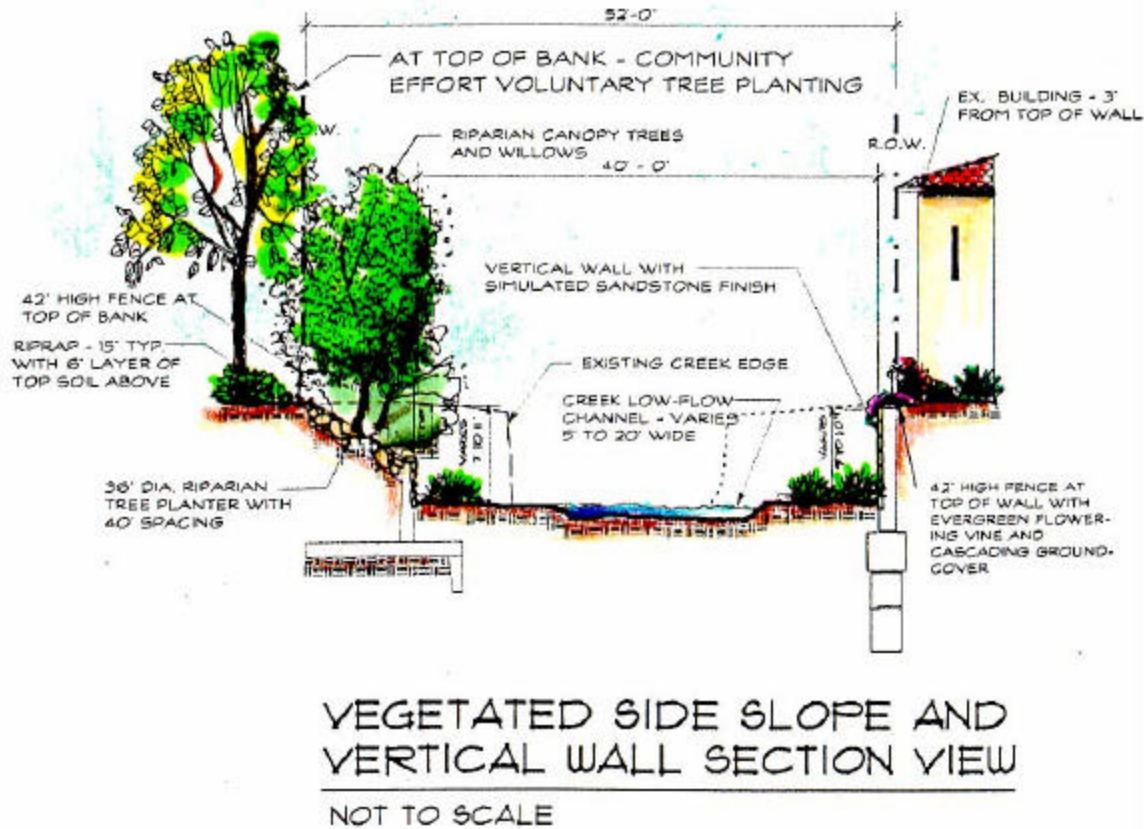
I. Project Description.

The Corps proposes to develop a flood-control facility on Mission Creek in Santa Barbara with a capacity of 3,400 cfs (existing capacity is 1,500 cfs) and will thereby provide approximately a 20-year storm level of protection. Four bridges along the study reach will be replaced. Additionally, the project includes a new culvert bypassing the oxbow upstream of Highway 101 ("oxbow bypass"). The culvert will cross the highway, Montecito Street, and the railroad tracks before rejoining the creek upstream of the Chapala Street Bridge. The culvert will be covered only across Montecito Street down to its confluence at Chapala Street Bridge, which will consist of two concrete boxes (12 ft x 10.5 ft). The open portion of the culvert beginning upstream of Highway 101 will be a 25-foot-rectangular concrete channel. The open channel will be approximately 200 linear feet, while the concrete box culvert will be approximately 350 feet in length. The oxbow will be left in place as a low flow channel.

The project includes planting of native riparian species along sloped banks stabilized by riprap, creation of 0.6 acres of riparian habitat adjacent to the oxbow, and enlargement of sloped planting areas. Land acquisitions will provide for the widening of the creek and creation of habitat expansion zones at several locations (as many as six) along Lower Mission Creek. The habitat expansion zones will be planted with trees native to coastal California. Species planted may include western sycamore (*Platanus racemosa*), cottonwood (*Populus fremontii*), coast live oak (*Quercus agrifolia*), California laurel (*Umbellularia californica*), wax myrtle (*Myrica californica*), hollyleaf cherry (*Prunus ilicifolia*), and white alder (*Alnus rhombifolia*).

The creek banks will consist of either a vertical wall or a combination vertical wall and riprap sideslope. The combination bank treatment will consist of vertical wall for the bottom half, while ungrouted riprap (15 inches thick) at a 1.5:1 (Vertical to Height ratio) slope will form the upper half. The height of the vertical wall in this combination design will vary along the entire length of the project area. Riprap will be overlain on a layer of native rock and soil, with topsoil distributed through the interstices of the riprap, and covered with 9 inches of prepared topsoil. Concrete pipes of varying sizes (up to a maximum three feet in diameter) will be placed in between the riprap to allow planting of native trees and vegetation. Several species of riparian trees, including western sycamore, cottonwood, and coast live oak will be planted from one gallon nursery stock into cylindrical planters embedded within the riprap and spaced 40 feet apart.

Rendering of short floodwalls with vegetated riprap¹



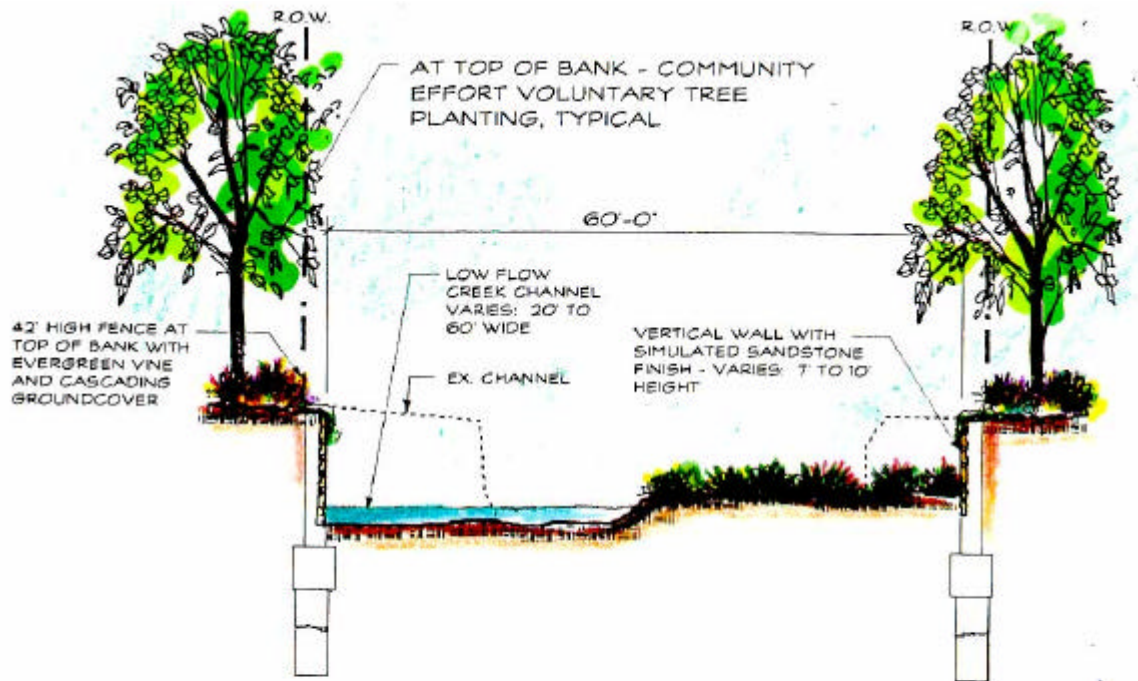
Willow branches will be placed into prepared soil below the riprap in dense rows with the expectation that approximately 20% will sprout vegetatively and find their way through gaps in the riprap. Other native understory species, including arroyo willow (*Salix lasiolepis*), Mexican elderberry (*Sambucus mexicana*), and coyote brush (*Baccharis pilularis*), will be seeded into the topsoil, or set out from liner stock.

Combination riprap and vertical wall will be the dominant bank treatment upstream of Highway 101, except in two short reaches just upstream of Haley-De la Vina Bridge and De la Guerra Bridge. Below Highway 101, the combination riprap and vertical wall will be applied along the southeast bank, starting from midpoint between Chapala Bridge and Mason Bridge down to midpoint between Mason Bridge and State Bridge and between the State Street bridge and the Cabrillo Street Bridge. In total, about 4,275 feet of Mission Creek will be finished

¹ City of Santa Barbara, Letter Dated 2/22/00

with this combination design. However, most of the stream banks in the coastal zone will consist of vertical walls.

Rendering of Vertical Flood walls²



VERTICAL WALL ON PIER FOOTING TYPICAL SECTION

NOT TO SCALE

Existing natural stream bottom will be maintained and stream bottom that is now concrete lined will be restored to natural conditions, except for immediately underneath bridges and through the oxbow. Restoration to natural bottom will necessitate excavation and removal of one to four feet of streambed in the reach between De la Guerra Street bridge and Ortega Street Bridge, one to three feet of streambed between Ortega Street Bridge and Bath Street Bridge, two to three feet of streambed between Cota Street Bridge and Haley-De la Vina Bridge, and two to four feet of streambed between Haley-De la Vina Bridge and Gutierrez Street Bridge. In the reach between Chapala Street Bridge and State Street Bridge, there will be excavation and/or fill of one foot of streambed. In the final reach of Lower Mission Creek from State Street Bridge to Cabrillo Boulevard Bridge, the streambed will be cleared of leftover footings from earlier structures.

² City of Santa Barbara, Letter Dated 2/22/00

There will be no flood-control improvements in the Mission Creek lagoon, south of Cabrillo Boulevard. Additionally, the project will include measures to improve fish habitat within the stream. These measures include placement of boulder clusters as energy dissipaters and provide some heterogeneity to the stream. Additionally, the project includes construction of a low-flow channel inland of the coastal zone, fish ledges and baffles and Goby refugia (hideouts) constructed along the flood-control walls.

Finally, the proposed project provides for annual maintenance of the flood-control facility. The maintenance activities include removal of sediment and vegetation from the streambed inland of the coastal zone, inspection and repairing, as needed, the channel wall, overflow culvert and weir structure, monitoring and repairing the vegetated rip rap areas and habitat expansion zones, and repairing interior drainage structures (storm drains). The vegetation removal will occur in a mosaic pattern that requires removal of vegetation from half the stream with the other half being cleared in the following year. Thus, the removal of vegetation from any one part of the stream will occur every other year. This consistency determination does not include vegetation or sediment removal in the coastal zone as part of the maintenance program.

II. Status of Local Coastal Program.

The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the Commission certified the LCP and incorporated it into the CCMP, the LCP can provide guidance in applying Chapter 3 policies in light of local circumstances. If the Commission has not incorporated the LCP into the CCMP, it cannot guide the Commission's decision, but it can provide background information. The Commission has partially incorporated the City of Santa Barbara LCP into the CCMP.

III. Federal Agency's Consistency Determination.

The Corps of Engineers has determined the project to be consistent to the maximum extent practicable with the California Coastal Management Program.

IV. Motion:

I move that the Commission agree with consistency determination CD-117-99 that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).

V. Staff Recommendation:

Staff recommends a YES vote on the motion. Approval of this motion will result in concurrence by the Commission in the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

VI. Resolution To Concur With Consistency Determination:

The Commission hereby concurs with the consistency determination by Corps of Engineers on the grounds that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the CCMP.

VII. Findings and Declarations:

The Commission finds and declares as follows:

A. Habitat Resources. The Coastal Act provides for the protection of stream resources. Section 30233(a) provides that:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities

and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

Section 30236 of the Coastal Act provides that:

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat

Section 30240(a) of the Coastal Act provides that:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

1. Existing Resources. The Corps of Engineers proposes to develop a flood-control facility on Lower Mission Creek, a 1.1-mile section of Mission Creek from the intersection of Canon Perdido and Castillo Streets to Cabrillo Boulevard, located in the City of Santa Barbara. This section of Mission Creek flows southeast through the City of Santa Barbara and eventually discharges into the ocean approximately 450 feet east of Stearn's Wharf.

The Mission Creek drainage, the largest of several coastal stream systems in the Santa Barbara region, originates in the Santa Ynez Mountains north of Santa Barbara. The drainage, including its tributaries, is approximately 11.5 square miles in size. The headwaters of Mission Creek and its major tributary, Rattlesnake Creek, occur at 3,500 feet. During the rainy season, Mission Creek ranges from a comparatively small stream carrying an average maximum of 370

cfs during non-flood years to a creek with peak flows of 5120 cfs³. The incidental trickle moving down the channel after mid-summer appears to be primarily urban runoff that enters Mission Creek via storm drains along its course. Mission Creek also periodically receives water from the Santa Barbara water tunnels.

The condition of the natural resources varies along the length of the Mission Creek watershed. The creek flows through steep terrain in the mountains with vegetation that is relatively undisturbed in its upper reaches. On this portion of the drainage, riparian woodland vegetation occurs along Mission Creek and its tributaries, and the surrounding vegetation includes chaparral and coast live oak woodland. South of the Botanical Garden, the terrain becomes flatter and the creek shows more signs of disturbance associated with the greater density of adjacent commercial and residential development. Within the project study area, between Canon Perdido Street and Cabrillo Boulevard, the natural habitat of the creek is highly modified. Only remnants of native vegetation remain in the creek and estuary, and the area adjacent to the creek consists of buildings, ornamental landscapes, parking lots, and roads. Natural habitat is significantly limited by urban development including periodic clearance of vegetation and accumulated sediments from the channel, the indiscriminate use of the channel as a dumping ground for refuse, intermittent and private hard siding of its channels, housing along both sides of the channel, bridges, discharge of storm water lines into the channel (especially underneath bridges), and the concentration of business developments within or adjacent to residential neighborhoods.

In lower Mission Creek, three areas of concrete interrupt the natural channel bottom and banks. Approximately 0.3 miles of a concrete trapezoidal channel occurs from Los Olivos Street to Mission Street. An approximately 0.8-mile concrete trapezoidal channel occurs from Valerio Street to Canon Perdido, the point where the project study area begins. Both of these areas are outside of the project area and the coastal zone, and will not be affected by the proposed project. However, there is a 0.1-mile rectangular concrete-bottomed and stone-walled channel occurs in the project study area from the Southern Pacific Railroad tracks to Chapala Street. In addition, the banks and stream bottom in the project area have been altered with grout stone, sacked concrete, pipe and wire revetment, gabions, bulkhead structures, and other stabilization structures to prevent bank erosion and flooding of adjacent development. Thus, the physical characteristics of the creek have been modified to a great extent, especially along the lower portions.

Although the Mission Creek watershed is not pristine, the drainage as a whole provides important aquatic resources. Mission Creek and its main tributary, Rattlesnake Creek, are designated by Santa Barbara County as prime examples of freshwater streams in the County. This designation maintains that these

³ Hydrology data from the U.S. Army Corps of Engineers 1995a.

creeks deserve special protection because the upper Mission Creek drainage supports extensive areas of quality riparian communities with high wildlife value. Even though the lower Mission Creek is significantly degraded, it provides habitat for two federally listed threatened species, the steelhead trout and the tidewater goby. The steelhead trout uses Lower Mission Creek as a migratory corridor to the upper reaches of the watershed, which are suitable for fish spawning. In addition, a population of tidewater gobies lives within the Mission Creek estuary.

2. Allowable Use and Alternatives. Section 30233 of the Coastal Act identifies eight allowable uses for the dredging diking and filling of coastal waters. Flood-control facilities are not defined as an allowable use under Section 30233(a). In addition, Section 30240(a) of the Coastal Act prevents the Commission from approving activities within an environmentally sensitive habitat area unless the activity is dependent on the sensitive resources. Obviously, a flood-control facility is not dependent on those resources.

However, Section 30236 of the Coastal Act allows for alteration of streams for flood-control purposes, provided that it meets all the requirements of that section. Section 30236 clearly anticipates dredging, diking, and filling of coastal waters for flood-control purposes and is a more specific policy than Section 30233(a) or 30240(a) and clearly shows legislative intent to allow alteration of streams for flood-control purposes.⁴ In other words, Section 30236 of the Coastal Act requires the Commission to approve flood-control facilities in certain circumstances, even though such activities do not comply with the allowable-use and resource-dependent tests of Sections 30233(a) and 30240(a) of the Coastal Act, respectively. Thus, the permissive language in Section 30236 provides evidence of legislative intent that, where necessary and properly designed, flood-control facilities can be authorized under the Coastal Act in coastal streams and rivers.

Before the Commission can authorize a flood-control project, it must meet all of the requirements of Section 30236. That section allows alterations of streams if they are for flood-control purposes, if there are no other feasible method for protecting existing structures in the floodplain, and if such protection is necessary for public safety or to protect existing development. According to the Corps, the proposed flood-control facility is necessary to protect existing development. In its Draft Feasibility Study, the Corps states that:

The primary problem affecting the lower Mission Creek study area is the threat of flooding to property which affects the health, safety and well-being of the residents of Santa Barbara. This is

⁴ Giving precedence to the more particular provisions of section 30236 over the more general provisions of sections 30233(a) and 30240(a) is in accord with generally applicable principles of California law. See, e.g., Civil Code § 3534 ("Particular expressions qualify those which are general.").

substantiated by flood records dating back to 1862. Records show that the area has suffered at least 20 considerable floods since 1900. Increased urbanization of the Santa Barbara area over the last century has contributed to increased runoff, and therefore, increased flooding frequencies.

...

Records since 1900 show that floods occurred in the Santa Barbara County area in 1906, 1907, 1909, 1911, 1914, 1918, 1938, 1941, 1943, 1952, 1958, 1962, 1964, 1967, 1969, 1973, 1978, 1980, 1983, 1995, and 1998.⁵

Additionally, the Feasibility Study identifies the cost of damages from flooding of Mission Creek. These costs are reported in Table 1 below and include damage to both structures and contents in 1998 dollars.

Table 1. Historical Flood Damages⁶

| Date of Flooding | Damages | Flood Level |
|-------------------------|----------------|--------------------|
| March 1995 | \$5,482,000 | 9-year |
| January 1995 | \$11,808,000 | 55-year |
| January 1983 | \$1,847,000 | 10-year |
| February 1983 | \$2,086,000 | 11-year |
| January 1967 | \$3,925,000 | NA |

According to this data, flooding on Mission Creek has damaged existing structures in the City of Santa Barbara.

The proposed project will improve the capacity of the stream from its existing capacity of 1,500 cfs, a five-year level of flood protection, to 3,400 cfs, a 20-year level of flood protection. The capacity improvement will be achieved through deepening and widening of the stream and through construction of floodwalls and riprap side slopes. Therefore, the Commission finds that the proposed project is for flood-control purposes and is necessary to protect existing development.

⁵ Draft Feasibility Report, Santa Barbara County Streams, Lower Mission Creek Corps of Engineers, December, 1999, pp. 13-17.

⁶ Draft Feasibility Report, Santa Barbara County Streams, Lower Mission Creek, Corps of Engineers, December 1999, p. 35.

The third test of Section 30236 limits the proposed flood-control facilities to those where there are no other feasible method for protecting existing structures. This test is similar to the alternatives requirement of Section 30233 of the Coastal Act, which prevents the Commission from authorizing dredging or filling within a stream unless the activity is the least damaging feasible alternative. The Corps analyzed several different alternatives to the proposed project. These alternatives included non-structural alternatives, several different flood-control designs, and the no-project alternative. The Corps' analysis of non-structural alternatives includes flood plain management, flood proofing, and relocation. The Corps describes these alternatives as follows:

The City of Santa Barbara has been a participant in the National Flood Insurance Program which requires the City to maintain a Flood Plain Management Plan to reduce future flood plain hazards. The Reconnaissance Study also investigated the flood warning system and evacuation element of flood plain management. The study revealed that a flood warning system would be impractical to implement. Storm waters falling in the upper Mission Creek watershed reach the lower Mission Creek area in less than one hour, which would be too short a time for local residents to respond to any flood warning.

Flood proofing measures examined in the Reconnaissance Study include blocking flood water from entering a structure, jacking the first floor of a structure above a flood surface elevation, and constructing a flood wall or ring dike. Blocking the flood waters at individual structures was not considered feasible due to likely failure of the structures' walls as a result of hydrostatic and hydrodynamic forces. Raising (jacking) structures above flood water elevations was determined to be too expensive and uneconomical given the frequency of flooding in the area. Flood walls or ring dikes were not considered a feasible alternative due to inadequate space, aesthetic considerations, and the difficulty in ensuring proper closure of openings in the wall or dike during a flood.

Finally, relocation of structures in the flood plain was considered. However, Santa Barbara is a highly developed area which has very little space to relocate structures out of the floodplain.

The Commission agrees that the lower Mission Creek is an urban stream and relocation or retrofitting existing development would likely be cost prohibitive and infeasible. The Corps also considered structural alternatives. Within the coastal zone, the Corps will primarily construct vertical walls, except for the easterly bank above and below Mason Street Bridge and between State Street and Cabrillo Boulevard, where the Corps will construct the toe wall and vegetated riprap combination. The portion of the project outside of the coastal zone consists

primarily of toe wall with vegetated riprap slopes. In a response to concerns raised by Commission staff, the City of Santa Barbara sent a letter explaining why a flood-control alternative that uses vegetated slopes within the coastal zone is not feasible (Exhibit 10). The City argues that such an alternative would require substantial acquisition of land and significantly increase the cost of the project. Additionally, the City would be required pursuant to state and federal law to mitigate for impacts to low-income housing and historic resources. That mitigation would also substantially increase the cost of the facility. According to the City, the cost increases required for such an alternative would result in a benefit-cost ratio of less than one,⁷ which means that the Corps could not fund the proposal. Therefore, the City concludes that that alternative is not feasible. The Commission does not consider its determination of feasibility to be constrained or governed by the Corps' cost benefit analysis. Nevertheless, in this case, the Commission agrees with the City that the alternative described above is infeasible, and that alternatives that are feasible are not less environmentally damaging, as discussed below.

For example in its revised consistency determination, the Corps considered a smaller version of the proposed project. In its Feasibility Study, the Corps considered two alternatives that provide protection from a 15-year flood, as opposed to the 20-year flood protection provided by the proposed project. Initially, this alternative seemed preferable, because it may allow the use of more vegetated riprap slopes within the coastal zone without the significant land acquisition costs. Additionally, its impacts to the estuary may be less than the proposed project because the stream corridor would be narrower. Finally, its costs may be significantly less, and thus it may have a benefit-cost ratio of greater than one. However, upon further analysis, the Corps' evaluation concluded that this alternative would not increase the amount of vegetated slopes in the coastal zone, reduce the impact to the estuary, nor lower the project costs. Therefore, the Corps concluded that that alternative was not environmentally preferable to the proposed project (Exhibit 11). In conclusion, the Commission finds that proposed project is the least damaging feasible alternative.

3. Mitigation. The proposed project includes excavating streambed, removing aquatic vegetation, widening of the stream banks and removing native and exotic vegetation from the banks. Additionally, the project includes annual maintenance of the facility. The project will increase the amount of estuarine habitat in the coastal zone, as it includes widening of the creek and removal of most of the existing cement from the streambed. In addition, the project includes construction of floodwalls and riprap slopes along the entire project area. This bank-hardening component will not significantly affect coastal zone resources.

⁷ If the economic benefits from a project are greater than its costs, then the benefit-cost ratio is greater than one and the project is acceptable to the Corps for federal participation. The Corps usually proposes the alternative with the highest ratio, also known as the "NED Alternative."

Most of the banks in the coastal zone are already hardened with a mixture of bank treatments including sandbags, cement walls, wood walls, gabions, and other measures to reduce erosion. In addition, the walls of buildings form the stream banks in several locations. Based on a rough estimate of the existing structures along the stream bank, approximately 85% of the coastal zone banks are currently hardened. The following chart shows the existing extent of stream bank structures:

Table 1, EXISTING BANK TREATMENTS IN THE COASTAL ZONE⁸

| STRETCH | HARDENED BANK (feet) | NATURAL BANK (feet) | TOTAL (feet) |
|---|---------------------------------|--------------------------------|---------------------|
| Yanonali Street to Mason Street, Right Bank | 430 | 0 | 430 |
| Yanonali Street to Mason Street, Left Bank | 390 | 110 | 500 |
| Mason Street to State Street, Right Bank | 480 | 10 | 490 |
| Mason Street to State Street, Left Bank | 210 | 210 | 420 |
| State Street to Cabrillo, Right Bank | 60 | 0 | 60 |
| State Street to Cabrillo, Left Bank | 160 | 0 | 160 |
| Total | 1,730 | 330 | 2,060 |
| Percentage of Coastal Zone | 84.0% | 16.0% | |

Despite the existing conditions of the creek, the project could result in impacts to stream resources, by decreasing the stream's ability to absorb pollution and reducing the amount of nutrients in the creek. In addition, the widening of the stream and the loss of bank vegetation may also result in water temperature increases because of the expanded surface area exposed to the sun and loss of shading. Finally, the increased maintenance from the project will cause annual disturbances to the stream including removal of recently established vegetation, application of pesticides, removal of pools, riffles, and other stream resources that may have formed since the previous year, removal of benthic organisms and burrowing male gobies, and other annual disturbances to stream resources.

The primary impacts from construction and maintenance of the flood-control facility are the loss of aquatic vegetation and potential increases in water temperature. However, the Corps incorporated mitigation for these impacts into

⁸ Personal Communications, John Moeur, LA District Corps of Engineers, 3/16/01.

its project. To mitigate for the loss of bank and instream vegetation, the Corps' project includes planting of riparian vegetation where it uses riprap and in habitat expansion zones. In addition, the Corps proposes to plant trees in the coastal zone on the inland side of the floodwalls where there is no vegetated riprap (Exhibit 11). The Corps maintenance activities do not include vegetation or sediment removal in the coastal zone. Therefore, estuarine or riparian vegetation that grows in the Mission Creek estuary will remain and will provide a source of nutrients and shading for the estuary. Finally, the Corps and the County Flood-Control District maintenance activities inland of the coastal zone (the maintenance plan does not include sediment and vegetation removal in the coastal zone) are designed to minimize vegetation removal. Specifically, the Corps will remove vegetation from half the channel along one side for an arbitrary distance, then switching to the opposite bank for another arbitrary distance. With the implementation of these measures, the loss of instream vegetation will not significantly stream resources.

Another potential adverse impact on stream resources from the proposed project is the possibility of an increase in water temperature. Specifically, the project includes widening of the stream and estuary thereby increase amount of water surface exposed to solar radiation. In addition, the project will remove a significant amount of non-native vegetation that provides shading of the stream. The Corps' analysis of this impact (Exhibit 12) concludes that the project will not significantly affect stream temperature. This conclusion is based on project features designed to minimize any temperature impacts. These mitigation measures include planting of trees inland of the floodwalls, planting of riparian vegetation on riprap slopes and habitat expansion zones, maintenance activities that do not include removal of vegetation in the estuary, and the mosaic vegetation removal (described above) inland of the coastal zone. These mitigation measures will prevent any long-term temperature impacts from the proposed project.

In conclusion, the Commission finds that the project will benefit the stream resources by widening of the stream and estuary and removal of artificial hard bottom in the estuary and stream. In addition, the Commission finds that the project includes mitigation for potential impacts to aquatic resources from vegetation removal and temperature increases. Therefore, the Commission finds that the project includes mitigation measures that will minimize environmental impacts from the proposed project in a manner consistent with the requirements of Section 30233(a) of the Coastal Act.

4. Avoiding Significant Disruption.

As described above, the Mission Creek provides habitat for steelhead trout and tidewater gobies, both of which are listed as threatened species. These sensitive resources are also ESHAs under the Coastal Act. Section 30240 of the Coastal Act requires that the project avoid significant disruption to the sensitive resources. The stream features (removal of hard bottom areas and stream widening) will increase the amount of habitat available to these species. In

addition, mitigation measures described above will mitigate for impacts to stream resources, and thus reduce impacts to listed species. Finally, the Corps has incorporated measures into its project specifically to minimize impacts to these sensitive species.

The U.S. Fish and Wildlife Service (Service) and the National Marine Fisheries Service (NMFS), as required by the federal Endangered Species Act, have evaluated all of these measures. Both of these resource agencies have responded to the Corps with favorable biological opinions (Exhibit 13 and 14). These biological opinions allow the project to go forward with modifications to protect listed species. The required modifications have been incorporated into the Corps' consistency determination (Exhibit 11).

Both the Service and NMFS recognize potential effects on listed species and add conditions to their biological opinions to address potential adverse effects. The specific measures incorporated into the project to avoid impacts to sensitive species include timing the project to avoid breeding and migration seasons, capturing and relocating these species prior to construction, and adding instream features to the project that will enhance the ESHA.

To avoid construction impacts on sensitive species, the Corps proposes the following measures.

Measures in the estuary to protect steelhead trout and tidewater gobies⁹

1. No construction work in water anywhere in the estuary from December 1st to June 1st;
2. Divide a suitable length of the estuary down the middle with an impermeable barrier;
3. Dam half the estuary at the upper end of the center-line barrier with sheet piling;
4. Qualified biologists walk downstream in zigzag pattern to herd as many fish as possible from the incipient enclosure;
5. Dam the lower end of the enclosure with sheet piling immediately;
6. Fish biologists seine the entire confined half thoroughly to remove any gobies and other large organisms to the wet side of the construction enclosure;
7. Commence pumping water from the enclosure with intakes to pump fitted with 1/2 mesh screens;

⁹ Final EIS, pp. 10-61—10-62.

8. Fish biologists monitor drying enclosure and seine it thoroughly at least twice a week;
9. When construction on one side has been complete, the downstream wall of the enclosure shall be removed first, followed by the upstream end;

Measures in the remaining portion of the creek to protect steelhead trout

10. No mechanized equipment permitted in water between December 1st and the end of March;
11. If continuous flows greater than half an inch deep occur through the Caltrans portion of Mission Creek (just above the project area) between April 1st and June 1st operation of mechanized equipment in the stream channel shall cease and may not resume until steady flows have dropped below that threshold;
12. Prior to starting work in the next region upstream, a qualified biologist will examine all scour pools at bridge abutments, undercut concrete ledges, etc.;
13. Any steelhead, or young salmonid fish in particular, found unexpectedly in these small refuges will be relocated upstream;
14. Silt curtains shall be deployed below the immediate area of construction. Curtains will be deployed in pairs, with a gap at least 30 feet wide between the upstream and the downstream curtain to reduce suspended sediments in the water;
15. A temporary net shall be strung across the existing low flow channel to prevent salmonids from entering the section of creek next to be constructed;
16. Once certified free of protected fish, the current will be diverted to a temporary pilot channel;
17. As many culvert pipes as determined necessary to carry anticipated low flows (at least 40 ft/sec capacity) shall be placed into the pilot channel. Culverts shall be at least 24 inches in diameter. All joints between culverts shall be smooth and the lining of each culvert shall also be smooth to the touch;
18. Once culverts have been placed, the biologist shall monitor each section at least twice a week to verify that screens are in place over intakes and water has not leaked into the local section under construction;
19. Prior to completion of work in a given section, the temporary net shall be re-suspended upstream of the culvert intake and fully across the existing low flow channel;

In summary, these measures will avoid significant impacts to steelhead by avoiding the migration season, removing any remaining steelhead from the construction area, and isolating the construction area from the rest of the creek. According to NMFS, steelhead use lower Mission Creek primarily as a migratory corridor and the creek does not contain habitat for overwintering juveniles or habitat for spawning. The migratory use of the stream will not be altered by the proposed project. In addition, the Corps has included features in the project design to improve the steelhead migratory function of this portion of the creek. These improvements include installation of fish ledges to provide some shading for steelhead trout, and fish baffles (a double row of large angular rocks) that provide areas for small fish to hide. The project also includes several boulder fields in the stream that are necessary as energy dissipaters but also provide some changes in water conditions making the stream more suitable for steelhead migration. Finally, the project will include a low flow channel (which will be reconstructed after maintenance) to provide better migratory habitat for steelhead trout. The NMFS conclusion about the project's effects is as follows:

Steelhead occurring within the project area during construction will be limited mainly to rearing juveniles and outmigrating smolts. Minor amounts of harassment and incidental mortality could occur (10-20 fish captured and 1-2 individuals experience mortality during relocations) during stream diversion and relocations. This small number of individuals affected is not expected to affect the survival of the steelhead population in Mission Creek or the survival and recovery of the Southern California ESU.

NMFS expects 5380 linear ft of temporary and permanent impacts to designated critical habitat, along the channel invert and both embankments, resulting from the project action. Within this area, project construction will result in the permanent loss of natural banks, and temporary degradation to the stream bed and riparian vegetation. In addition, maintenance activities will result in ongoing impacts to the stream bed. These impacts, however, will not alter the current use of lower Mission Creek as a steelhead migration corridor. Furthermore, with the maintenance of a natural bottom channel bed, incorporation of fish baffles and ledges, and enhancement of the riparian corridor, including replacement of nonnative with native vegetation, these impacts are not expected to diminish the value of habitat for the survival and recovery of the Mission Creek population or of the Southern California ESU.¹⁰

The project is also designed to avoid significant impacts to tidewater gobies. The project does not include any activities in Mission Creek lagoon (south of Cabrillo Boulevard), which is goby breeding habitat. The creek above Cabrillo Boulevard

¹⁰ Biological Opinion, Mission Creek Flood-Control Channel, NMFS, August 2, 2000, pp.25-26.

has considerable amount of cement placed on the streambed making it unsuitable for goby breeding. Other mitigation measures include timing of project construction to occur between April and October when water flow is minimal, not allowing work in flowing water unless absolutely necessary, placing silt-fencing during routine maintenance activities, using existing access points, ensuring that construction equipment is in good working order and inspected for leaks and drips on a daily basis prior to commencement of work, and developing a storm water pollution prevention plan to prevent discharges of oil or grease into the creek. Finally, the Corps proposes to install tidewater goby refugia on the floodwalls in the estuary to provide hiding places for the gobies during high water flows (the Service describes this as a novel but untested concept with uncertain beneficial effects). In addition, the Service concludes that the project impacts to tidewater gobies are as follows:

After reviewing the current status of the tidewater goby, the environmental baseline for the action area, the effects of the proposed Project, and the cumulative effects, it is our biological opinion that the Lower Mission Creek Flood Control Project, as proposed, is not likely to jeopardize the continued existence of the tidewater goby. We have reached this conclusion because the project is unlikely to result in the permanent extirpation of the species from Mission Creek. Also, the Corps and County will implement measures to minimize adverse effects, and the quality of the spawning habitat will not be substantially affected by the project. Lastly, the tidewater goby currently occurs in approximately 85 streams and the loss of the population in Mission Creek, however unlikely, would not appreciably reduce the ability of the species to survive and recover.¹¹

In conclusion, the project area of Mission Creek provides a migration corridor for steelhead trout and foraging habitat for tidewater gobies. The project construction will affect these sensitive species, but the Corps' project includes measures to minimize construction-related impacts. The completed flood-control channel will provide similar habitat values to that which is currently there. Additionally, the project includes features that will provide additional benefits to these sensitive species. These features include removal of cement from streambed, construction and maintenance of a low-flow channel, and placement of boulder fields, fish ledges and baffles, and goby refugia. Therefore, the Commission finds that the proposed project will not significantly disrupt the sensitive species and is consistent with Section 30240 of the Coastal Act.

5. Other Habitat Issues. In the previous staff recommendations on this project, the staff has raised concerns about adequacy of monitoring and use of non-native vegetation to cover floodwalls and fences. The previous concern

¹¹ Biological Opinion, Mission Creek Flood-Control Channel, USFWS, June 1, 2001, p.14.

on the monitoring was that it was limited to five years and was not based on performance standards. The Corps has modified the monitoring to identify restoration goals and monitor the area until those goals are accomplished. Specifically, the Corps will monitor for five years. If the plants do not meet pre-determined growth and survival rates, actions shall be taken to improve growing conditions such as fertilization, increased irrigation, and replanting. The Corps' restoration goal is 90% success of the planted vegetation at end of five years. After five years from the project construction, the Santa Barbara County will assume all operational and maintenance activities. Monitoring of plants will be incorporated into the annual maintenance manual, and Santa Barbara County will monitor vegetation for the life of the project. In addition, the Corps will monitor project impacts on steelhead and gobies and will submit all of these monitoring plans to the Commission. These modifications resolve previous concerns over monitoring and the Commission finds that the monitoring is consistent with the Coastal Act's habitat policies.

The original project proposal provided for planting non-native ivy on the floodwalls and the fences above the facility. The Commission staff previously raised concerns that this type of vegetation is likely to spread into the riparian plants and reduce their habitat value. Based on Commission concerns, the Corps revised its project to eliminate any provision to plant non-native vegetation. Specifically, the Corps proposes to use locally native vegetation, such as blackberry vines, to cover fences and floodwalls. With this modification, the project's re-vegetation provisions are consistent with the habitat policies of the Coastal Act.

6. Conclusion. In conclusion, the Commission finds that the proposed project is necessary to protect existing structures from flooding. In addition, based on analysis provided by the Corps, the proposed project is the least damaging feasible alternative. The project also includes feasible habitat improvements and mitigation, including monitoring, that meets the mitigation requirements of the CCMP. Finally, the project incorporates measures that will avoid significant construction and operational disruptions to the threatened species habitat within the stream. Therefore, the Commission finds that the proposed project is consistent with the stream alteration, wetland, and habitat policies of the CCMP.

B. Water Quality. The Coastal Act protects the quality of coastal waters, including streams. Section 30231 of the Coastal Act provides that:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with

surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Mission Creek is located in a relatively urban part of the City of Santa Barbara. The water quality of Mission Creek has been degraded by the discharge of non-point source pollution associated with urban land uses. As stated above, Mission Creek provides habitat for two federally listed threatened fish species, which can be adversely affected by water pollution. The proposed project has the potential to adversely affect these sensitive species by increasing point and non-point sources of pollution.

The proposed project may increase sedimentation into the creek during construction and maintenance operations. In similar situations, the Commission has required a pollution prevention plan to address these construction-related impacts. The environmental documents for this project indicate that the Corps will prepare a runoff and erosion control plan. Since the Corps has not completed this plan, the Commission cannot evaluate it for consistency with the water quality policies of the CCMP. However, the Corps has committed to phased consistency review of this project. The Corps will approve the final project design through a process known as “Pre-construction Engineering Design” (PED). The Corps will evaluate the PED for coastal zone effects and, if necessary, consistency with the CCMP. Since the storm water pollution prevention plan (SWPPP) will be prepared as part of the final plan, the Commission will review it for consistency when it reviews the PED for the project. At this point in the process, the Corps has committed to preparing a SWPPP that will minimize non-point source pollution from construction and maintenance activities. This commitment along with an agreement to conduct a phased consistency review that will include a SWPPP is sufficient to find the proposed project consistent with the water quality policies of the CCMP.

Another water quality concern is from discharges associated with flood-control maintenance activity. The Corps’ consistency determination allows for annual maintenance activities that include sediment and vegetation removal and the use of herbicides to control aquatic vegetation. However, the consistency determination for this project does not include any sediment or vegetation removal in the coastal zone. In addition, the Corps committed to additional mitigation measures to prevent adverse water quality effects on coastal zone resources from maintenance activities inland of the coastal zone. These water quality measures are as follows:¹²

1. All routine maintenance shall be accomplished between August and mid-October.

¹² Final EIS, pp. 7-18—7-19.

2. A pair of silt curtain fences shall be set across the low flow not more than 100 yards downstream of the work area; the fences shall be approximately 10 yards apart.
3. If storm events do not reduce conveyance more than 15% then the next maintenance cycle shall involve only mowing of vegetation.
4. No discharge of oil or spill of contaminated material should be allowed within the creekbed (conditions identified above will be followed during the future maintenance).
5. BMPs will be employed to avoid excessive impacts to water quality.

Additionally, the project provides for the use of herbicides to control vegetation. However, since the project does not include vegetation removal for maintenance purposes in the coastal zone, herbicides will only be used inland of the coastal zone boundary. Additionally, the vegetation removal activities will occur during the dry season when creek flows are minimal or non-existent. Finally, the type and manner with which the Corps will use herbicides will be consistent with state and federal regulations. The Corps and subsequently the Flood-Control district will only use herbicides authorized for aquatic and near-aquatic use, Rodeo™ and Round-up™. Therefore, the Commission finds the use of herbicides for vegetation control inland of the coastal zone will not affect water quality resources of the coastal zone.

The proposed flood-control facility provides the Corps with an opportunity to restore water quality resources in Mission Creek by incorporating appropriate measures or technologies into the project design to reduce non-point source pollution. The reconstruction of the flood-control facility, including the replacement of bridges, installation of a culvert under Highway 101, and construction of floodwalls, provide the Corps with an opportunity to design the facility to incorporate measures into the project in order to reduce non-point source pollution. Section 30231 of the Coastal Act requires the restoration of water quality resources where feasible. However, based on discussions with water quality experts within the Commission staff and Santa Barbara County, it is undesirable to install non-point source pollution treatment devices at the storm drain outfall into the flood-control channel because that location makes maintenance of the treatment device more problematic.¹³ It seems preferable to place the treatment devices away from the creek where it is more accessible for maintenance purposes. In addition, the City of Santa Barbara is applying for a Phase II Stormwater NPDES to address non-point source pollution and the City has other programs to address water quality. Finally, the Corps has agreed that prior to construction it will coordinate with the City's water quality staff to determine if any of the activities proposed by the City could be coordinated with

¹³ Personal Communication, Santa Barbara County, 3/29/01.

the flood-control project. With these measures, the project is consistent with the water quality policies of the Coastal Act.

In conclusion, the Commission finds that the proposed project will not significantly affect water quality resources of the coastal zone. Specifically, the project provides for water quality protection measures for construction and maintenance of the flood-control channel. Additionally, the Corps will coordinate its construction activities with the City's non-point source pollution program to avoid redundant construction efforts and increasing construction efficiency. Therefore, the Commission finds that the proposed project is consistent with the water quality policies of the CCMP.

C. Sand Supply. Section 30233(d) of the Coastal Act provides for the use of suitable material removed from coastal streams to be used for beach replenishment purposes. This section provides that:

Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

The proposed project includes the removal of sediment from the stream. With such activities, the Coastal Act requires the use of suitable sediment for beach replenishment purposes, if it is feasible. In this case, the Corps proposes to test the material prior to excavation to determine if it is suitable for beach disposal. If it is suitable, the Corps will use the sediment for beach replenishment purposes. Otherwise, the Corps will dispose this sediment at nearby landfills. The Corps and the County will conduct the same analysis for sediment removal associated with maintenance activities. The final EIS for the proposed project does not include an evaluation of the suitability of this material for beach replenishment. In order to make such an evaluation, the Corps must analyze the physical and chemical characteristics of the sediment. Without this information, the Commission cannot determine if sediment disposal activities would adversely affect coastal resources. However, these evaluations will be conducted and submitted to the Commission staff during the PED consistency review. With the commitments for phased consistency review and use of suitable material for beach replenishment purposes, the Commission finds that the proposed project is consistent with the sand supply policies of the Coastal Act.

D. Visual Resources. The Coastal Act protects visual resources of the coastal zone. Section 30251 of the Coastal Act provides, in part, that:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas....

The proposed construction of the vertical walls south of Highway 101 could adversely affect visual resources of the coastal zone. In its environmental documents, the Corps proposes to design the project in a manner that minimizes visual impacts. The Corps describes addresses visual quality as follows:

Aesthetic values would be increased by planting native riparian types of vegetation on the upper slope of the creek. Establishment of vegetation on the creek banks would enhance aesthetic values of the project area compared to other alternatives and existing conditions. Vertical walls would not be visible to people walking along the creek banks, as the upper banks would be covered with vegetation. Aesthetic treatment would be applied to visible lower banks to minimize impacts of the vertical walls. During the public scoping meeting, people voiced their concerns regarding aesthetic resources located within the project area. The new constructed channel would be pleasing and natural looking. Their concerns are addressed by implementation of this alternative. The visual quality of the project reach would have positive impacts on tourists visiting the City of the Santa Barbara. Within a few years, planted vegetation would be mature, and trees would increase the visual value of the project area. Lower vertical walls may not be visible to people walking on a side of the creek banks due to the vegetation growth on upper banks. It should be noted, however that full-height vertical walls would be used for most of the distance between State and Mason Streets. These walls would also receive aesthetic treatment, including the use of colored concrete and forms that would mimic the appearance of sandstone or natural vertical creek banks.¹⁴

As stated above, most of the Creek within the coastal zone will be developed with vertical walls and will not appear as a natural stream. However, most of the stream within the coastal zone (approximately 85%) is already developed with some manmade structures. The remaining portion of the stream within the coastal zone still has some natural appearance. The proposed project will change that appearance of the entire stream within the coastal zone to a channelized hardened stream. Despite this change in character, the Corps

¹⁴ FEIS, p. 13-6.

believes that the project will improve the visual character of the creek. This conclusion is based on several factors: 1) the project will remove trash and debris from the creek and project fences will make it more difficult to dispose of trash in the stream; 2) the project will remove buildings that are immediately adjacent to the creek (in some cases the walls of the buildings are the banks of the stream); 3) removal of several different types of existing bank treatments that have already adversely affected the stream's visual quality; and 4) the floodwalls will be constructed out of sandstone which will be more aesthetically pleasing than the current bank treatments and the project will include planting of vegetation that will also improve the visual quality of the stream. Finally, through the PED consistency review, the Commission will be able to ensure that the final design will protect and improve visual resources. Therefore, the Commission finds that the proposed project is consistent with the view protection policies of the Coastal Act.

E. Archaeological Resources. The Coastal Act provides for protection of historic and archaeological resources. Section 30244 of the Coastal Act provides that:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

In addition, Section 30251 provides, in part, that:

... Permitted development shall be sited and designed ... to be visually compatible with the character of surrounding areas....

The proposed project is located in an area that contains both historic structures and archaeological sites. The environmental documents for the Mission Creek project state that there are historic and archaeological resources potentially affected by the proposed project. The project includes measures to protect these resources by avoiding the removal of historic buildings and constructing a sandstone channel that is visually consistent with the historic character of downtown Santa Barbara. In addition, the Corps has coordinated with the State Historic Preservation Officer (SHPO), who did not raise any objections with the Corps' project. Therefore, the Commission finds that the proposed project is consistent with the archaeological policies of the Coastal Act.